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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/943,951	08/31/2001	Samir Kumar	D/A1037	2032

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Patent Documentation Center  
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14  
EXAMINER

SOOHOO, TONY GLEN

ART UNIT

PAPER NUMBER

1723

DATE MAILED: 09/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/943,951

Applicant(s)

KUMAR ET AL.

Examiner

Tony G Soohoo

Art Unit

1723

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12, 14-16, 18-28, 32 and 33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5-10, 12, 22-25, 27, 32 and 33 is/are allowed.
- 6) ☒ Claim(s) 1-4, 11, 14-16, 18-21, 26 and 28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10.
- ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 and 11; and 18-21, 26, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steinmetz 61772 (cited previously).

Steinmetz teaches a shank H, a riser  $m$ ,  $m'$  and positioned in a outward angle from the plane perpendicular to the long axis of the shank at an angle, whereby the planar shaped (claim 4) riser rotates in the arrow shown in figure 2 which moves material from the sides of the container and thereby inherently causes a vortex at the trailing edge of the raiser member.

Steinmetz discloses all of the recited subject matter as defined within the scope of the claims with the exception of the angle being between 10 and 16 degrees (claims 1, 18), the angle being between 14 and 15.5 degrees (claim 2, 19); the angle being of the entire outside surface of the riser is angled between 10 and 16 degrees (claims 3, 20).

Steinmetz discloses an outward angle but does not point out the particular range of angle as seen in figure 2. Since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art, (In re Aller, 105 USPQ 233.), and whereby the angle

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of the riser to the outer wall provides an effective deflection of the material to cause a kinetic change in flow vector that is imported to the fluid to be processed, it is deemed that it would have been obvious to one of ordinary skill in the art to modify the angles to the values as stated of 10-16 or 14-15.5 for the entire planar riser so as to optimize the change in flow vector that is imported to the fluid to be processed. With regards to claims 11 and 26, note the holes from the riser (perforations)

With regards to claim 28, the Steimetz reference discloses all of the recited subject matter as defined within the scope of the claims with the exception of the position of the riser leading edge being positioned within 6 mm of the wall, the figure 2 shows the leading edge close to the wall but does not point out the dimension of the gap. The gap between the wall and the leading edge of the riser member may be a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955). It within the common knowledge and skill of a person having ordinary skill in the art that the gap between a blade element and a wall of a container is an effective variable in the movement of fluid within the container. Accordingly, it is deemed that it would have been obvious to one of ordinary skill in the art to modify the gap of the riser with the wall of the container such that it is 6mm of the wall of the container so as to produce a more effective movement of the fluid from entire circumference of the wall close to the container so as to more effectively mix the contents.

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3. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brumagim 2235604 (cited previously).

Brumagim teaches a shank 3 having a diagonal, and a riser 4, 4.

Brumagim discloses all of the recited subject matter as defined within the scope of the claims with the exception of the riser height to the diagonal dimension greater than 0.20, 0.25, 0.27 (claims 14-16).

The size of the height of the riser 4 is an effective variable in the amount horizontal volume the agitator sweeps across the inside of the container. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237 (CCPA 1955). Also, it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Accordingly, it is deemed that it would have been obvious to one of ordinary skill in the art to modify the size of the height of the riser 4 so that the ratio of the riser height to the diagonal dimension is 0.2, 0.25, 0.27 produces a more effective agitation and sweep of the material caused by the risers.

#### ***Allowable Subject Matter***

4. Claims 5-10, 12, 22-25, 27, 32-33 are allowed.

#### ***Response to Arguments***

5. Applicant's arguments, see paper no 9 and 13, filed 4/23/03, with respect to the rejection(s) of claim(s) have been fully considered and are persuasive. Therefore, the

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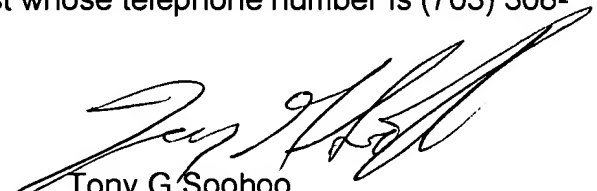
rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the references above.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony G Soohoo whose telephone number is (703) 308-2882. The examiner can normally be reached on 7:00 AM - 5:00 PM, Tues. - Fri..

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
Tony G Soohoo  
Primary Examiner  
Art Unit 1723

tgs